

Claim Amendments

1. (currently amended) A method of communications between slave devices in a communication network having a master device, the slave devices including a first slave device and a second device, said method comprising the steps of:

establishing a frequency-hopping connection link between the first slave device and the master device, and between the second slave device and the master device;

establishing a non-frequency-hopping connection link between ~~[[a]]~~ the first slave device and ~~[[a]]~~ the second slave device if said non-frequency-hopping connection link is available; and

~~establishing or~~ maintaining ~~[[a]]~~ the frequency-hopping connection link, if said non-frequency-hopping connection link is unavailable.

2. (previously presented) The method of claim 1, wherein the communication network has a plurality of frequency channels for establishing the connection links, said method further comprising the step of

measuring channel conditions in at least a portion of the plurality of frequency channels for determining whether said non-frequency-hopping connection link is available based on the measured conditions.

3. (previously presented) The method of claim 2, wherein the channel conditions include carrier power of the measured channel, and interference and noise levels affecting the non-frequency-hopping connection link.

4. (original) The method of claim 2, wherein the measurement of the channel conditions is carried out by the first slave device.

5. (currently amended)) A method of communications between slave devices in a communication network, said method comprising the steps of:

_____ establishing a non-frequency-hopping connection link between a first slave device and a second slave device if said non-frequency-hopping connection link is available; and

_____ establishing or maintaining a frequency-hopping connection link, said non-frequency-hopping connection link is unavailable, wherein the communication network has a plurality of

frequency channels for establishing the connection links, said method further comprising the step of:

measuring channel conditions in at least a portion of the plurality of frequency channels for determining whether said non-frequency-hopping connection link is available based on the measured conditions, wherein the measurement of the channel conditions is carried out by the first slave device, said [[The]] method of claim 4, further comprising the step of providing the first slave device a plurality of measurement parameters, including measurement time and frequencies to be measured, wherein the first slave device measures the channel conditions based on the measurement parameters.

6. (currently amended) A method of communications between slave devices in a communication network, said method comprising the steps of:

establishing a non-frequency-hopping connection link between a first slave device and a second slave device if said non-frequency-hopping connection link is available; and

establishing or maintaining a frequency-hopping connection link, said non-frequency-hopping connection link is unavailable, wherein the communication network has a plurality of frequency channels for establishing the connection links, said method further comprising the step of:

measuring channel conditions in at least a portion of the plurality of frequency channels for determining whether said non-frequency-hopping connection link is available based on the measured conditions, wherein the measurement of the channel conditions is carried out by the first slave device, and The method of claim 4, wherein the communications network comprises a master device for communicating with the slave devices, said method further comprising the step of providing the master device a measurement report including results of the channel condition measurements.

7. (original) The method of claim 6, further comprising the step of selecting a frequency for establishing said non-frequency-hopping connection link based on the measurement report.

8. (original) The method of claim 7, further comprising the step of providing the first slave device and the second slave device a plurality of channel parameters including the selected frequency.

9. (original) The method of claim 8, wherein the channel parameters further include a modulation code rate.
10. (original) The method of claim 8, wherein the channel parameters further include a quality of service requirement.
11. (currently amended) The method of claim 6 ~~claim 3~~, wherein whether the frequency channel for said non-frequency-hopping connection link is available is also determined based on transmission power of the first slave device.
12. (currently amended) The method of claim 6 ~~claim 3~~, wherein whether the frequency channel for said non-frequency-hopping connection link is available is also determined based on transmission power of the second slave device.
13. (currently amended) The method of claim 6 ~~claim 4~~, wherein the communication network has a master device for communicating with the slave devices, said method further comprising the step of the first slave device sending a request to the master device requesting establishment of said non-frequency-hopping connection link.
14. (currently amended) A system for adaptive allocation of communications channels between two slave devices in a communications network having a master device, said system comprising:
a first mechanism for establishing a frequency hopping connection between a first slave and the master device, and between a second slave and the master device; and
a second mechanism for determining whether a non-frequency-hopping connection link between [[a]] the first slave device and [[a]] the second slave device is available;
a ~~second~~ third mechanism for establishing the non-frequency hopping connection link between the first slave device and the second slave device if the non-frequency-hopping connection link is available; and
~~a third mechanism for establishing or maintaining [[a]] the frequency hopping connection link between the first slave device and the second slave device the non-frequency-hopping connection link is unavailable.~~

15. (previously presented) The system of claim 14, wherein the communications network has a plurality of frequency channels for establishing the communication links, and wherein the first mechanism determines whether the non-frequency-hopping connection link is available based on channel conditions including carrier power of the frequency channels and interference and noise levels, which may affect the non-frequency-hopping connection link, said system further comprising a fourth mechanism for measuring the channel conditions.

16. (original) The system of claim 15, wherein the channel conditions are measured based on a plurality of measurement parameters including measurement time and frequencies to be measured.

17. (currently amended) A system for adaptive allocation of communications channels between two slave devices in a communications network, said system comprising:

_____ a first mechanism for determining whether a non-frequency-hopping connection link between a first slave device and a second slave device is available;

_____ a second mechanism for establishing the non-frequency hopping connection link between the first slave device and the second slave device if the non-frequency-hopping connection link is available; and

_____ a third mechanism for establishing or maintaining a frequency hopping connection link between the first slave device and the second slave device the non-frequency-hopping connection link is unavailable, wherein the communications network has a plurality of frequency channels for establishing the communication links, and wherein the first mechanism determines whether the non-frequency-hopping connection link is available based on channel conditions including carrier power of the frequency channels and interference and noise levels, which may affect the non-frequency-hopping connection link, said system further comprising a fourth mechanism for measuring the channel conditions, and ~~The system of claim 15,~~ wherein the communications network comprises a master device for communicating with the slave devices, said system further comprising a further mechanism for providing the master device a measurement report including results of the channel condition measurements for allowing the master device to select a frequency for establishing said non-frequency-hopping connection link based on the measurement report.

18. (currently amended) The system of claim 17 ~~claim 15~~, wherein the first mechanism determines whether the communication channel for the non-frequency-hopping connection link is available also based on transmission power of the first slave device.

19. (currently amended) The system of claim 17 ~~claim 15~~, wherein the first mechanism determines whether the communication channel for the non-frequency-hopping connection link is available also based on transmission power of the second slave device.

20. (currently amended) A slave device in a communications network, the communication network comprising a master device and a further slave device for communicating with the slave device, said slave device comprising:

a linking mechanism for establishing a frequency hopping connection link between the slave device and the master device, and between the further slave device and the master device; and

a request mechanism for requesting a non-frequency hopping connection link between the slave device ~~[[with]]~~ and the further slave device; ~~[[and]]~~ wherein

~~[[a]]~~ the linking mechanism ~~[[for]]~~

~~establishing~~ establishes said non-frequency hopping connection link ~~[[to]]~~ between the slave device and the further slave device if said non-frequency hopping connection link is available, and

~~establishing a~~ maintaining the frequency hopping connection link ~~to the further slave device~~ if said non-frequency hopping connection link is unavailable.

21. (previously presented) The slave device of claim 20, wherein the communications network has a plurality of frequency channels for establishing the non-frequency hopping connection link, said device further comprising

a measurement mechanism for measuring channel conditions in at least a part of the plurality of frequency channels for determining whether said non-frequency hopping connection link is available based on the measured conditions.

22. (previously presented) The slave device of claim 20, wherein the communications network comprises a master device for communicating with the slave device and the further slave device,

and wherein the request for establishing the non-frequency hopping connection link is carried out through the master device.

23. (currently amended) A slave device in a communications network, the communication network comprising a further slave device for communicating with the slave device, said slave device comprising:

a request mechanism for requesting a non-frequency hopping connection link between the slave device with the further slave device; and

a linking mechanism for

establishing said non-frequency hopping connection link to the further slave device if said non-frequency hopping connection link is available, and establishing a frequency hopping connection link to the further slave device if said non-frequency hopping connection link is unavailable, wherein the communications network comprises a master device for communicating with the slave device and the further slave device, and wherein the request for establishing the non-frequency hopping connection link is carried out through the master device, and ~~The slave device of claim 22,~~ wherein the communications network has a plurality of frequency channels for establishing the non-frequency hopping connection link, said device further comprising

a measurement mechanism for measuring channel conditions in at least a part of the plurality of frequency channels; and

a reporting mechanism for reporting a measurement report including results of the measured conditions to the master device so as to allow the master device to select a frequency channel for establishing said non-frequency hopping connection link based on the measurement report.